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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/094,539	06/12/1998	RICHARD C. MACHIN	13768.73	8493

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EXAMINER

ANYA, CHARLES E

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 06/04/2004

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/094,539

Applicant(s)

MACHIN ET AL.

Examiner

Charles E Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-13 are pending in this application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-5 and 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,225,255 B1 to Hyder et al. in view of U.S. Pat. No. 6,249, 818 B1 to Sharma.**

3. As to claim 1, Hdyer teaches a method for representing to an application the characteristics of an underlying connection-oriented device through an integrating component, over known application-level interfaces of the integrating component, and allowing an application to take advantage of a connection-oriented I/O subsystem having the integrating component over the known application-level interfaces, and without requiring the application programmer to program directly to the integrating component (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14), the method comprising: representing to an application, over a first known application-level interface of the integrating component (Interface 218 figures 2-5 Col. 6 Ln. 54 – 67), wherein the

integrating component is positioned between the application and a connection-oriented device driver associated with the connection-oriented device and one or more data transport components (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14), representing to the application, over a second known application-level interface of the integrating component, data and control characteristics of the underlying connection-oriented device (Interface 228 figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14), receiving, by the integrating component , a command from the application over the first known application-level interface (figures 2/3/5 (Req 222 Col. 6 Ln. 54 – 67), receiving, by the integrating component, a command from the application over the second known application-level interface (figures 2/3/5 (Res 260/262 Col. 6 Ln. 54 – 67), and by the connection-oriented device driver, interacting with the integrating component in order to execute said received commands so that the application may take advantage of the connection-oriented I/O subsystem and use the connection-oriented device using the known application-level interfaces and without requiring the application programmer to program to an interface of the connection-oriented device driver (Col. 11 Ln. 25 – 36).

4. Hyder is silent with reference to the connection control characteristics of the underlying connection-oriented device related to the manner in which the connection-oriented device makes a connection for sending and receiving network data over a network.

5. Sharma teaches the connection control characteristics of the underlying connection-oriented device related to the manner in which the connection-oriented

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device makes a connection for sending and receiving network data over a network (figure 3 Col. 4 Ln. 1 - 18).

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharma and Hyder because the teaching of Sharma would improve the system of Hyder by providing transport protocol registration and application connection (Col. 3 Ln. 55 – 60, Col. 4 Ln. 10 – 12).

7. As to claim 2, Sharma teaches a method as recited in claim 1 wherein the integrating component has a connection interface for making connections with underlying connection-oriented devices (figure 3 Col. 4 Ln. 10 – 18), and a data transport interface for interacting with the one or more data transport components (figure 2 (Mappers 50a, 50b...) Col. 3 Ln. 43 – 51) the method further comprising the steps of: the one or more data transport components interacting with applications and the data transport interface (figure 2 (Stack/Drivers 44a... Col. 3 Ln. 43 – 51), sending to the integrating component, instructions for directing data and data control information over a specified one of the data transport components and receiving, from the integrating component, an identifier that can be used by the application to access the data over the specified data transport component (Col. 5 Ln. 8 –18).

8. As to claim 3, a method as recited in claim 2, wherein: the integrating component implements a connection manager interface that may support a connection manager component and the one or more data transport components interact with the integrating

component over the connection manager interface to effectively register their respective data types (“...RegTransport call...” Col. 3 Ln. 59 – 67), and the method further comprises the steps of: receiving from the integrating component a redirection command specifying a data type; and interacting over the connection manager interface of the integrating component in order to determine a correct data transport component based on the data type (Col. 5 Ln. 8 – 18, Col. 6 Ln. 22 – 25).

9. As to claim 4, see the rejection of claim 1.

10. As to claim 5, Hyder teaches a connection-oriented driver subsystem where connection control information is communicated to an application (application is inherent in Hyder) through a connection interface while data and data control information is communicated through connection-oriented transport interface, the driver subsystem comprising: a connection-oriented device driver controlling a connection-oriented hardware device (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14, Col. 10 Ln. 1 – 64), a data transport capable of communication with an application (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14, Col. 10 Ln. 1 – 64), an integrating component that interfaces with the connection-oriented device driver and the data transport (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14, Col. 10 Ln. 1 – 64), said connection-oriented device driver and said data transport serving as clients to said integrating component (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14, Col. 10 Ln. 1 – 64), wherein said integrating component is positioned between the application, the connection-oriented device driver, and the

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data transport (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14, Col. 10 Ln. 1 – 64) and said integrating component including: a connection-oriented transport interface for interfacing with the data transport and for associating with the data transport, thereby allowing the client to send and receive data and data control information over the connection (figures 2-5 Col. 6 Ln. 54 – 67, Col. 7 Ln. 1 – 14).

11. Hyder is silent with reference to an abstracted connection interface that is available to a client that allows the client to create a connection with a desired location using the connection-oriented hardware device and a proxy client component that interfaces with the abstracted connection interface and the connection-oriented transport interface of the integrating component as a client, said proxy client component being configured to: receive abstract connection creation commands and abstract connection control commands from the application and to implement said commands through use of the connection interface to create and manage the connection, cause redirection of data and data control information from the connection through the proxy client component to designated data transport designated in one of the abstract connection control commands and return to the application, in response to a previously received connection control command, an identifier to be used to by the application for receiving data and data control information from the designated data transported so that the connection control information can be communicated to the application through the proxy client component while the data and data control information is communicated to the application through the designated data transport.

12. Sharma teaches an abstracted connection interface that is available to a client that allows the client to create a connection with a desired location using the connection-oriented hardware device (Open integration Interface (OI) 40/Transport Redirection Head 48 figure 2) and a proxy client component that interfaces with the abstracted connection interface and the connection-oriented transport interface of the integrating component as a client, said proxy client component being configured to: receive connection creation commands and connection control commands from the application and to implement said commands through use of the connection interface to create and manage the connection (figure 3 Col. 4 Ln. 1 – 27), cause redirection of data and data control information from the connection through the proxy client component to designated data transport designated in one of the connection control commands (Col. 5 Ln. 8 – 18) and return to the application, in response to a previously received connection control command, an identifier to be used to by the application for receiving data and data control information from the designated data transported so that the connection control information can be communicated to the application through the proxy client component while the data and data control information is communicated to the application through the designated data transport (Col. 5 Ln. 8 – 18).

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Sharma and Hyder because the teaching of Sharma would improve the system of Hyder by providing transport protocol registration and application connection (Col. 3 Ln. 55 – 60, Col. 4 Ln. 10 – 12).

14. As to claims 7 and 10, see the rejection of claim 1.
15. As to claim 8, see the rejection of claim 5.
16. As to claim 9, Sharma teaches a computer program product as recited in claim 8, wherein the data redirection takes in the integrating component (Open Integration Interface 40 figure 2).
17. As to claims 11 and 12, see the rejection of claims 2 and 3 respectively.
18. As to claim 13, see the rejection of claim 10.
19. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,225,255 B1 to Hyder et al. in view of U.S. Pat. No. 6,249, 818 B1 to Sharma as applied to claim 5 above, and further in view of U.S. Pat. No. 6,041,356 to Mohammed.**
20. As to claim 6, Hyder and Sharma as modified are silent with reference to a subsystem as recited in claim 5 wherein the integrating component is incorporated as part of an operating system.
21. Mohammed teaches a subsystem as recited in claim 5 wherein the integrating component is incorporated as part of an operating system (Col. 6 Ln. 3 – 9).

22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Mohammed and Hyder and Sharma as modified because the teaching of Mohammed would have improve the system of Hyder and Sharma by reducing communication latency between the operating system and NDIS layer.

Response to Arguments

23. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (703) 305-3411. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles E Anya
Examiner
Art Unit 2126

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